

FUEL CELL AND WATER VAPOR PERMEABLE MEMBRANE USED THEREIN

Patent number: JP2002100384
Publication date: 2002-04-05
Inventor: KOIZUMI YOSUKE
Applicant: ASAHI CHEMICAL CORP
Classification:
- **International:** H01M8/04; B01D53/22; B01D71/82; H01M8/10
- **European:**
Application number: JP20000289282 20000922
Priority number(s): JP20000289282 20000922

Report a data error here

Abstract of JP2002100384

PROBLEM TO BE SOLVED: To realize enough humidification in a humidifying part of a fuel cell without changing the oxygen concentration in the air supplied to the cell.
SOLUTION: The fuel cell comprises a cell part 1 for the cell reaction and the humidifying part 2 on the air side. The humidifying part 2 is constituted with a raw material gas channel 21 for introducing a raw material gas, a discharge gas channel 22 for introducing a discharged gas from the cell part 1, and a water vapor permeable membrane 23 for separating the two channels. The membrane 23 comprises a specific water-soluble polymer with a high hydrophilicity, such as a water-soluble polymer with a metal salt of carboxyl as a functional group in no less than 70 weight % filled in pores of a porous membrane. The membrane permits only water vapor to permeate at high permeability, and does not permit the other gases except for the water vapor.

